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EXAMINER
REZA, MOHAMMAD W

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _05 May 2008_.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-50_ is/are pending in the application.
   4a) Of the above claim(s) _16-25_ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-15 and 26-50_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _06/24/05, 11/05/07_.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1. This is in response to the arguments filed on 11/05/2007.

2. Claims 1-50 are pending in the application.

3. Claims 1-15, and 26-50 have been rejected.

4. Claims 16-25 have been restricted.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for

the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: according to the claims 40-50, **"a physical medium**

maintaining instruction" lacks of antecedent basis in the specification. An indefinite

term "**physical medium**", which does not have support in the specification. Necessary

correction is required.

Election/Restrictions

1. Applicant's election without traverse of clams 1-15, and 26-50 on 05/05/2008

acknowledged.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

2.   Claims 40-50 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. **"a physical medium maintaining instruction"** is reasonably interpreted by one of ordinary skill as just software, it is a system of software, per se. As examiner could not find any support of "**physical medium**" in the specification of the present application. So, it is assumed that the function of the medium is just software not any hardware. Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. Similarly, computer programs claimed as computer instructions per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes,

as they are not "acts" being performed. Such claimed computer programs do not define

any structural and functional interrelationships between the computer program and

other claimed elements of a computer which permit the computer program's

functionality to be realized. Accordingly, it is important to distinguish claims that define

descriptive material per se from claims that define statutory inventions. So, it does not

appear that a claim reciting software with functional descriptive material falls within any

of the categories of patentable subject matter set forth in § 101.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 1-15, and 26-50 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the enablement requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to enable one skilled in

the art to which it pertains, or with which it is most nearly connected, to make and/or use

the invention. Examiner could not found any disclosure in the figures and specifications

of the **present application and any priority claimed provisional applications (it is**

very important to show the disclosure of the claims limitations in the in the

provisional applications because it is claiming the priority of 07/10/2002). The

following limitations have no written description support:

As per claims 1, 26, 40, and 48, "**the portion of the digital content that is not encrypted being necessary and sufficient for conducting navigation operations, without decrypting the media stream represented by the digital content**" has no written description support.

As per claim 29, and 36, "encrypting substantially all of that digital content using second steps of encryption, those second steps of encryption **being relatively less secure than those steps of encrypting a portion of that digital content**" has no written description support.

As per claim 31, "...**decrypting that encrypted portion of that digital content format; encoding that media stream into a second digital content format, those steps of encoding including those steps of encrypting a portion of that digital content and those steps of not encrypting a portion of that digital content**" has no written description support.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9.   Claims 1-15, and 26-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1, and 26 applicants mention "**necessary and sufficient** for conducting navigation operations on**"**, which is generally

narrative and indefinite with the invention. Applicants do not point out clearly which

options include in the present invention by these terms. It is defiantly unclear to an

ordinary skill in the art that what is the standard to determine **necessary and sufficient**

for conducting navigation operations on. In the same way claims 26, and 48, consists

with "**in at least a partial ordering**", "**substantially....under that partial ordering**", "**it**

is possible" which are ambiguous as well with the claim limitations. So this limitation is

indefinite with the present application. The examiner will interpret these limitations with

the regarding claims as best understood for applying the appropriate art for rejection

purposes. Appropriate correction needs to overcome the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1-15, and 26-50 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Johnson et al hereafter Johnson (European Patent Application EP

0792041 A2) in view of Alve et al hereafter Alve (US Patent 6959090).

11.   As per claim 1, Johnson discloses a method, including steps of encoding a media

stream into a digital content format representing that media stream; encrypting a portion

of that digital content, less than the entire digital content format representing that media

stream, the portion of the digital content that is encrypted being required for

presentation of the media stream (Fig. 1, abstract 57, col. 2, lines 46-58); not encrypting

a portion of that digital content, less than the entire digital content format representing

that media stream (Fig. 1, abstract 57, col. 5, lines 8-15). Johnson does not expressly

disclose the portion of the digital content that is not encrypted being necessary and

sufficient for conducting navigation operations on, without decrypting, in the media

stream represented by the digital content. However, in the same field of endeavor, Alve

discloses the portion of the digital content that is not encrypted being necessary and

sufficient for conducting navigation operations on, without decrypting, in the media

stream represented by the digital content (abstract, col. 4, lines 31-47).

Accordingly, it would been obvious to one of ordinary skill in the network security art at

the time of invention was made to have incorporated Alve's teachings of using the

unencrypted portion to navigate the media stream with the teachings of Johnson, for the

purpose of suitably using the block encryption procedure to more securely transferring

the digital content (abstract, col. 4, lines 31-47).

12.   As per claim 2, Johnson does not disclose a method, wherein said steps of

encoding provide an MPEG encoding of at least some video data. However, Alve

discloses wherein said steps of encoding provide an MPEG encoding of at least some

video data (abstract, col. 4, lines 31-47).

The same motivation that was utilized in the combination of claim 1 applies equally as

well to claim 2.

13.   As per claim 3, Johnson discloses a method wherein said steps of encrypting

include steps of encrypting at least some audio or video data using a block-substitution

cipher (col. 2, lines 35-40).

14.   As per claim 4, Johnson discloses a method wherein said steps of encrypting

include steps of encrypting at least some audio or video data using a block- substitution

cipher; and refraining from encrypting at least some audio or video data using that

block-substitution cipher, wherein an amount of audio or video data not encrypted is

less than a block size for that block-substitution cipher (col. 4, lines 17-24).

15.   As per claim 5, Johnson discloses a method wherein said steps of encrypting

include steps of identifying at least a first set of data and a second set of data in the

digital format; and separately encrypting the first set of data and the second set of data;

whereby the first set of data can be made available to a first set of users and the second

set of data can be made available to a second set of users, the first set of users being

distinguishable from the second set of users (col. 9, lines 5-20).

16.   As per claim 6, Johnson discloses a method wherein said steps of encrypting

include steps of refraining from encrypting formatting information (col. 3, lines 15-19,

col. 7, lines 49-58).

17.   As per claim 7, Johnson discloses a method wherein the digital content format

includes at least some audio or video data and at least some formatting information (col.

2, lines 35-40).

18.   As per claim 8, Johnson discloses a method wherein a method wherein the

digital content format representing that media stream includes a set of layers, each

relatively higher-level layer representing an abstraction for which each relatively lower-level layer represents an implementation thereof; a first set of relatively higher-level layers represent audio or video information for the media stream, while a second set of relatively lower-level layers represent techniques by which that information is formatted or supplemented; and the step of encrypting is applied only to that portion of the digital content representing audio and video information (col. 12, lines 22-50).

19.   As per claim 9, Johnson discloses a method wherein the digital content format representing that media stream includes a set of layers, each relatively higher-level layer representing an abstraction for which each relatively lower-level layer represents an implementation thereof; a first set of relatively higher-level layers represent audio or video information for the media stream, while a second set of relatively lower-level layers represent techniques by which that information is broken into packets, indexed, multiplexed, or supplemented with metadata; and the step of encrypting is applied only to that portion of the digital content representing audio and video information (col. 6, lines 31-58).

20.   As per claim 10, Johnson discloses a method wherein the digital content format representing that media stream includes a set of layers, each relatively higher-level layer representing an abstraction for which each relatively lower-level layer represents an implementation thereof; a first set of relatively higher-level layers represent audio and video information for the media stream, while a second set of relatively lower-level layers represent techniques by which that information is broken into packets, indexed, multiplexed, or supplemented with metadata; and the step of encrypting is not applied to

that portion of the digital content representing other than audio and video information

(col. 6, lines 31-58).

21.   As per claim 11, Johnson discloses a method wherein the media stream includes

at least one of: still media, an illustration (col. 5, lines 22-36).

22.   As per claim 12, Johnson discloses a method wherein including steps of

selecting that portion of the digital content for encryption so there is no substantial

change in distribution of that digital content (col. 8, lines 31-50).

23.   As per claim 13, Johnson discloses a method wherein said steps of selecting

include ensuring there is no substantial change in packetization of a set of digital data in

that digital content (col. 8, lines 31-50).

24.   As per claim 14, Johnson discloses a method wherein said steps of selecting

include ensuring there is no substantial change in synchronization of audio with video

portions of the media stream (col. 8, lines 31-50).

25.   As per claim 15, Johnson discloses a method wherein said steps of selecting

include ensuring there is no substantial change in length of at least some identifiable

audio or video data in that digital content (col. 8, lines 31-50).

26.   As per claim 26, Johnson discloses a method including steps of encoding a

media stream into a digital content format representing that media stream, that digital

content format having a set of information nodes, those information nodes being

disposed in at least a partial ordering; encrypting a portion of that digital content, the

portion being encrypted less than the entire digital content format representing that media stream, the portion of the digital content that is encrypted being required for presentation of the media stream (Fig. 1, abstract 57, col. 2, lines 46-58); wherein the unencrypted portion of that digital content is substantially closed in a direction under that partial ordering (Fig. 1, abstract 57, col. 5, lines 8-15). Johnson does not expressly disclose whereby it is possible to navigate the unencrypted portion of that digital content without having to decrypt it. However, Alve discloses whereby it is possible to navigate the unencrypted portion of that digital content without having to decrypt it (abstract, col. 4, lines 31-47).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 26.

27.   As per claim 27, Johnson does not discloses a method wherein those navigation operations include at least one of: a rewind operation, a fast forward operation, a movement operation to a selected location within the digital content, a pause operation, a halt operation. However, Alve wherein those navigation operations include at least one of: a rewind operation, a fast forward operation, a movement operation to a selected location within the digital content, a pause operation, a halt operation (abstract, col. 4, lines 31-47).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 27.

28.   As per claim 28, Johnson discloses a method wherein the encrypted version of that digital content is substantially unchanged in formatting parameters from an un-encrypted version of that digital content (col. 8, lines 31-50).

29.   As per claim 29, Johnson discloses a method including steps of encrypting substantially all of that digital content using second steps of encryption, those second steps of encryption being relatively less secure than those steps of encrypting a portion of that digital content (col. 8, lines 31-50).

30.   As per claim 30, Johnson discloses a method wherein those steps of encrypting only a portion include steps of encrypting only packet payloads when the digital content format is one of the group: an MPEG encoding, a variant of an MPEG encoding (col. 6, lines 31-58).

31.   As per claim 31, Johnson discloses a method including steps of importing a media stream in a first digital content format, that first digital content format having at least a portion of that media stream encoded in a digital content format, at least a portion of that digital content format being encrypted; decrypting that encrypted portion of that digital content format; encoding that media stream into a second digital content format, those steps of encoding including those steps of encrypting a portion of that digital content and those steps of not encrypting a portion of that digital content (Fig. 1, abstract 57, col. 5, lines 8-15).

32.   As per claim 32, Johnson discloses a method including steps of importing a media stream in a first digital content format, that first digital content format having at

least a portion of that media stream encoded in a digital content format, at least a

portion of that digital content format being encrypted; wherein those steps of encrypting

a portion of that digital content include steps of decrypting only a portion of that digital

content (col. 9, lines 5-20).

33.   As per claim 33, Johnson discloses a method wherein those steps of decrypting

only a portion of that digital content include steps of decrypting only formatting

information within that digital content (col. 4, lines 17-24).

34.   As per claim 34, Johnson discloses a method wherein those steps of not

decrypting a portion of that digital content include steps of not decrypting metadata (col.

4, lines 17-24).

35.   As per claim 35, Johnson discloses a method wherein those steps of not

decrypting a portion of that digital content include steps of not decrypting data

necessary and sufficient for browsing or searching within a library of files (col. 2, lines

35-40).

36.   As per claim 36, Johnson discloses a method wherein including steps of

encrypting substantially all of that digital content using second steps of encryption,

those second steps of encryption being relatively less secure than those steps of

encrypting a portion of that digital content (col. 8, lines 31-50).

37.   As per claim 37, Johnson discloses a method wherein the encrypted version of

that digital content is substantially unchanged in formatting parameters from an

unencrypted version of that digital content (col. 8, lines 31-50).

38.   As per claim 38, Johnson discloses a method wherein those navigation

operations include at least one of: a rewind operation, a fast forward operation, a

movement operation to a selected location within the digital content, a pause operation,

a halt operation (Fig. 1, abstract 57, col. 5, lines 8-15).

39.   As per claim 39, Johnson discloses a method wherein those steps of encrypting

a portion include steps of encrypting only packet payloads when the digital content

format is one of the group: an MPEG encoding, a variant of an MPEG encoding (col. 4,

lines 17-24).

40.   As per claim 40, Johnson discloses a physical medium maintaining instructions

interpretable by a computing device, the instructions directing that computing device to

encode a media stream into a digital content format representing that media stream, the

instructions to encode including elements directing that computing device to encrypt a

portion of that digital content, less than the entire digital content format representing that

media stream, the portion of the digital content that is encrypted being required for

presentation of the media stream(Fig. 1, abstract 57, col. 2, lines 46-58); to not encrypt

a portion of that digital content, less than the entire digital content format representing

that media stream (Fig. 1, abstract 57, col. 5, lines 8-15). Johnson does not expressly

disclose the portion of the digital content that is not encrypted being necessary and

sufficient for conducting navigation operations on, without decrypting, the media stream

represented by the digital content. However, Alve discloses the portion of the digital

content that is not encrypted being necessary and sufficient for conducting navigation

operations on, without decrypting, the media stream represented by the digital content
(abstract, col. 4, lines 31-47).

The same motivation that was utilized in the combination of claim 1 applies equally as
well to claim 40.

41.   Claims 41-47 are listed all the same elements of claim 4, 11, 12-15 but in
medium form rather than method form. Therefore, the supporting rationales of the
rejection to claim 4, 11, 12-15 apply equally as well to claim 41-47.

42.   As per claim 48, Johnson discloses a physical medium maintaining instructions
interpretable by a computing device, the instructions directing that computing device to
encode a media stream into a digital content format representing that media stream,
that digital content format having a set of information nodes, those information nodes
being disposed in at least a partial ordering; encrypt a portion of that digital content, the
portion being encrypted less than the entire digital content format representing that
media stream, the portion of the digital content that is encrypted being required for
presentation of the media stream (Fig. 1, abstract 57, col. 2, lines 46-58); wherein the
unencrypted portion of that digital content is substantially closed in a direction under
that partial ordering (Fig. 1, abstract 57, col. 5, lines 8-15). Johnson does not expressly
disclose whereby it is possible to navigate the encrypted portion of that digital content
without having to decrypt it. However, Alve discloses whereby it is possible to navigate
the encrypted portion of that digital content without having to decrypt it (abstract, col. 4,
lines 31-47).

The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 48.

43.   Claims 49-50 are listed all the same elements of claim 12-13 but in medium form rather than method form. Therefore, the supporting rationales of the rejection to claim 12-13 apply equally as well to claim 49-50.

Conclusion

44.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad w. Reza whose telephone number is 571-272-6590. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOAZZAMI NASSER G can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nasser G Moazzami/   Mohammad Wasim Reza

Supervisory Patent Examiner, Art Unit 2136   AU 2136